

# Department of Environmental Resources Management

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### Palm Beach County Board of County Commissioners

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"An Equal Opportunity Affirmative Action Employer" August 22, 2002

Mr. John Zahina, Project Manager South Florida Water Management District Post Office Box 24680 West Palm Beach, Florida 33416-4680

SUBJECT: LOXAHATCHEE RIVER MFL DOCUMENT

Dear Mr. Zahina:

The following are our department's comments on the July 12, 2002 draft Minimum Flows and Levels for the Loxahatchee River and Estuary, Technical Document. The document was provided to us for our review, and our staff downloaded several of the appendixes from the web site. We will start with general comments first and follow with specific comments.

## **General Comments**

In general, we are disappointed that many of our comments that we made in a July 19, 2001 letter concerning the previous draft were either not addressed or only partially addressed. In particular, errors in historical information have not been corrected in the current draft. Because many of our previous comments are still valid, we are enclosing a copy of our previous letter.

We are also disappointed that the document does not look beyond the proposed Comprehensive Everglades Restoration Project (CERP) and Northern Palm Beach County Comprehensive Water Management Plan (NPBCCWMP) projects for Minimum Flows and Levels (MFL) recovery strategies in Chapter 6. As we detailed in our February 28, 2002 comment letter on the NPBCCWMP plan (enclosed), several of these projects have major environmental impacts, appear to have poor cost-to-benefit ratios, and may otherwise not be implementable. We believe that the MFL recovery plan chapter should have taken a fresh look at all projects, eliminated those of questionable benefit, and considered additional projects that might have merit.

A serious deficiency in the MFL recovery plan is a failure to investigate the potential benefits of a stormwater retention reservoir on land along the west leg of the C-18 Canal. This promising option has been given only vague mention under issues to be studied later. As we have noted in previous correspondence, there is 4,600 acres of agricultural land along the west leg of the C-18 Canal that could potentially be used to capture the runoff from 47 square miles of the Loxahatchee River watershed. A 600-acre reservoir with a depth of 8 feet (4,800 acre/feet) could provide 50 cfs of baseflow to the

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river for a 90-day period. This reservoir alone could provide almost all the additional baseflow needed to meet the 65 cfs 2018 target, and would help attenuate peak stormwater flows to the river. The reservoir could be funded by eliminating projects with major environmental impacts, like the C-17 and C-51 backpumping projects, and transferring the \$51 million estimated for these two projects to the reservoir. Given the obvious benefits of a C-18 reservoir, we are mystified by the District's lack of interest in this project. We request that the MFL recovery plan chapter be rewritten to evaluate the potential of this project.

# **Specific Comments**

<u>Page 10, 2nd paragraph</u> - The Loxahatchee Slough Natural Area has been left off the list of publicly-owned natural areas and the name of the Beeline Natural Area has been changed to the Hungryland Slough Natural Area.

<u>Page 15</u>, last paragraph - Cypress Creek does not drain the Hungryland Slough and only drains a small portion of Jupiter Farms.

Page 32 - The document states that construction of the C-18 Canal reduced the size of the Loxahatchee Basin from 270 to 210 square miles without saying how. To our knowledge, the construction of the C-18 Canal merely drained the watershed and did not cut any portion of the basin off from the rest. The reduction of the basin appears to be caused by the berming off of the southern portions of the Loxahatchee Slough by the construction of the CSX railroad, which forms the West Palm Beach Water Catchment Area (WCA), and the draining of the portions of the slough south of the WCA by Lake Worth Drainage District. This section needs to be rewritten to explain how the watershed basin was reduced.

Page 43, Table 9 - The Hungryland Slough Natural Area next to the Corbett WMA that the County manages is only around 3,000 acres, not 10,000. If you count the portion of the Hungryland Slough within the Loxahatchee Slough Natural Area, that gives an additional 1,900 acres. However, if you count this acreage, you must reduce the Loxahatchee Slough acreage by the same amount to avoid double-counting the same acreage.

Page 113, Table 3 - The District should be careful about putting much reliance on pond apple as a key species for the valued ecosystem component (VEC). Environmental Resources Management (ERM) staff has frequently observed pond apple growing in more saline conditions than the other five key species. The data in Table 23 supports these observations. Staff reports that in many locations, it is not brackish water that kills pond apple, but destruction of the trunk and aboveground roots by marine boring organisms.

<u>Page 153, 2nd paragraph</u> - The management target statement "Provide supplemental water to the Loxahatchee Slough sufficient to maintain water levels that do not fall below the identified hydroperiod targets by more than six inches during normal years" does not make sense. The target

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hydroperiod was developed to replicate the natural Slough fluctuation under normal rainfall conditions, and should be easily met during normal years. In fact, in the western portions of the Slough where the outfall culverts are boarded up, the Slough already achieves the target hydroperiod 90-95% percent of the time in normal rainfall years without any supplemental water. When the Loxahatchee Slough Structure is built, the entire Slough will achieve similar results without any supplemental water. In a normal year, the only way the Slough would fall six inches below the target hydroperiod would be if water was being withdrawn from the Slough after water levels dropped below the target. For the first part of the target statement to be meaningful, it should be changed to read "do not fall below the identified hydroperiod targets by more than two inches during normal years" or this portion of the statement should be deleted. ERM concurs with the second part of the statement about maintaining water levels that do not drop six inches below the target hydroperiod for more than 30 days during drought periods with a return frequency of once every 10 years.

Page 156 - Phase 3 Projects - A project to install a pump station to collect runoff from the Corbett Wildlife Management Area into the C-18 Canal and store it into the Loxahatchee Slough is listed as planned despite our previous objections to this project (see both enclosed letters). ERM manages the Slough, but this project has never been discussed with us or approved by us. There will be very few situations when excess water is available in the C-18 Canal and the Slough is also below its target hydroperiod. Pumping water into the Slough when it is at or above its target hydroperiod is incompatible with the purposes for which it was purchased and the County's proposed management of the Slough. We believe that this project is not cost-effective, as any benefit from C-18 backpumping will be minimal.

As previously stated, any funding for the C-18 backpumping project would be better applied to development of a far more useful C-18 Reservoir project. We request that the C-18 backpumping project be removed from the recovery plan projects and either deleted entirely, or placed on a list of projects requiring further study. If this project remains as a recovery plan component, it should be noted that permission and cooperation from our department is not assured.

Should you have any questions about these comments, please do not hesitate to contact me at (561) 233-2400.

Sincerely.

Richard E. Walesky, Director

Environmental Resources Management

REW:SF

cc:(with enclosures)(2)

Ken Todd, Water Resources Manager, Palm Beach County Patricia Walker, Plan Manager, SFWMD

Loxahatchee River Coordinating Council



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July 19, 2001

Ms. Kathy LaMartina, Program Manager District-wide MFL Program South Florida Water Management District P.O. Box 24680 3301 Gun Club Road West Palm Beach, FL 33416-4680

Dear Ms. LaMartina:

SUBJECT:

COMMENTS ON DRAFT REPORT ENTITLED "MINIMUM FLOWS AND LEVELS FOR THE LOXAHATCHEE RIVER AND ESTUARY"

The Department of Environmental Resources Management (ERM) appreciates the opportunity to comment on the draft technical document describing the methods and technical criteria for developing minimum flows and levels (MFLs) for the Loxahatchee River and estuary. We support the District's efforts to reduce or prevent harm and restore the Loxahatchee River and estuary. Our comments are as follows:

Introduction and Background (page 1) - It would be helpful if the introduction and background explained the relationship between the establishment of MFLs and the requirements and goals of the Loxahatchee River National Wild and Scenic River Management Plan, the Loxahatchee River Watershed Action Plan, and the various state and federal laws affecting management of the Loxahatchee River.

Water Reservation Rules (page 9) - Water reservations rules to achieve the MFLs are to be drafted at some undetermined date in the future. The majority of the flows needed to satisfy the MFLs appear to be coming from the Loxahatchee Slough. We request that no water reservation rules be adopted until minimum (and maximum) flows and levels have been established for the Loxahatchee Slough. Some of the proposed strategies to provide MFL flows to the Loxahatchee River have the potential to cause significant harm to the Loxahatchee Slough. Although we strongly support efforts to provide minimum flows to the Loxahatchee River, it should not be accomplished at the expense of another valuable natural resource area.

Rainfall Data (page 12) - The rainfall data used are from 1982, and do not include more recent studies (for example, Dent 1997 - "Rainfall Variations in the Loxahatchee River Watershed"). The use of the most recent studies will become more critical when future versions of the salinity model that will include precipitation are run.

<u>Tributary Information</u> (page 15) - Cypress Creek does not drain Jupiter Farms or the Hungryland Slough.

History Information (pages 19 - 20) - The private Florida Coast Line Canal and Transportation Company dredged the 50-foot-wide Florida East Coast Canal between Jacksonville and Miami from 1890 to 1912. It was turned over to the federal government in the late 1920s, and was widened, deepened, straightened, and renamed the Atlantic Intracoastal Waterway in the early 1930s. The first Fort Jupiter was present on Pennock Point from 1838 to 1844, and the second Fort Jupiter was present north of Center Street from 1855 to 1860 (DuBois 1981- "The History of the Loxahatchee River"). Fort Jupiter was not present on Jupiter Island in the 1870s, and Henry Flagler was not active in Palm Beach County until the 1890s. The Florida East Coast Railroad bridge was constructed across the Loxahatchee River in 1894. Railroad service to West Palm Beach began in the fall of that year. The first bridge for present-day Alternate A1A was constructed in 1911 (Dubois 1981).

Land Use (pages 33-34) - The table on page 33 does not include any conservation lands outside of Jonathan Dickinson State Park. The Jupiter Ridge Natural Area and the Juno Dunes Natural Area are in the Coastal subbasin; the Pal-Mar Natural Area and the Loxahatchee River Natural Area are in the Cypress/Pal-Mar subbasin; the Loxahatchee Slough Natural Area, the Hungryland Slough Natural Area, and the J. W. Corbett Wildlife Management Area are in the C-18/Corbett subbasin. These lands should be moved from the undeveloped land use category to the conservation category. The map on page 34 should not show an urban land use designation for unbuilt Unit 11 in the Acreage.

Water Catchment Area - The report is inconsistent in the treatment of the West Palm Beach Water Catchment Area (WCA). This area is not considered part of the Loxahatchee River watershed (pages 13 and 14), but the City of West Palm Beach is considered a major water user in the watershed (page 35). We recommend the following changes: 1) add the portion of the WCA north of Northlake Boulevard to the watershed, since this area currently drains into the Loxahatchee Slough; 2) do not add the WCA portions south of Northlake Boulevard to the watershed until sufficient improvements are made to provide a significant hydrological connection between the WCA and the Slough; and 3) do not include the City of West Palm Beach as a water user until a significant hydrological connection is established.

Water Supply (pages 35 - 36) - The urban water supply demands are significantly overstated by including permitted users outside the watershed. Besides the City of West Palm Beach, the City of Riviera Beach, the Town of Mangonia Park, Good Samaritan Hospital, PBC/Century Utilities, and Palm Beach County (2W, 8W) are all located outside the Loxahatchee River watershed in the C-17 Canal and Intracoastal drainage basins. The only urban users in the watershed are the Town of Jupiter, the Town of Tequesta, United Technologies, the Palm Beach Park of Commerce, and part of Seacoast Utilities. The report includes the total permit amount for Seacoast Utilities, which includes the Hood Road wellfield and the North Palm Beach, Burma Road, and Palm Beach Gardens wellfields. Only the numbers for the Hood Road wellfield, which is in the watershed, should be used. The three other wellfields are in the C-17 or Intracoastal watershed. If a significant hydrological connection to the WCA is established, then the City of West Palm Beach and other water suppliers dependent on recharge from the WCA could be added in the future.

Review of Aerial Photographs - The report contains several incorrect conclusions based on an analysis of the 1940 and 1995 aerial photographs. First, cypress trees are said to have disappeared because of less frequent inundation of the floodplain (page 80, page B-10). The report does not include the most obvious reason that cypress trees disappear - they are cut down. According to Dubois (1981, page 8), the entire Loxahatchee River was logged in 1941. This logging is referred to on pages 20 and 72 of the report. The

statement in the report that the cypress trees remain where the floodplain was wider (and the trees were harder to log since they had to be dragged farther to the river channel) indirectly supports this. The replacement of cypress by swamp hardwoods after logging has been well-documented elsewhere (such as in the Fakahatchee Strand). Mature canopy bald cypress trees will not disappear because of inundation changes, and are quite capable of surviving on dry land. The seedling recruitment phase is when cypress trees are sensitive to water levels. If the trees had died, the dead snags should still be present as the snags are down-river. The logging explanation can be verified by looking for stumps in the areas that cypress disappeared from, or by reviewing other aerial photographs such as the 1953 series available at the local Soil and Water Conservation District office. Second, the statement that slash pine and saw palmetto have invaded the floodplain (pages 79 and B-8) also does not consider the effects of logging. Virtually all of the pine flatwoods in Palm Beach County were logged in the 1920s and 1930s. Without trees, these areas would look like wet prairies in aerial photographs. The pine forest regrew and saw palmetto expanded when wildfires were suppressed. If the soil type is checked in these areas, it will be found to be typical of pine flatwoods and not wet prairie. The incorrect conclusions about vegetation changes are important because they are cited as reasons to support the MFL, when in fact all they demonstrate are the effects of logging. Finally, there were no citrus groves on the river prior to 1940 (pages 78 and B-6). The orange groves in Riverbend County Park, the Reese tract, and the Shunk tract were established around 1900 (Jackson 1978 - "Early History of Jupiter, Florida") and are visible in the 1940 photograph. Their presence is alluded to on page 35 of the report. The Bee Line Highway was present in 1940 (pages 78 and B-5). What was actually present was the Seaboard Airline Railroad (the present-day CSX Railroad). The Bee Line Highway was not constructed until the late 1950s.

Salinity/MFL Analysis - The conclusion of the analysis is that 50 cubic feet per second (cfs) across the Lainhart Dam is all that is needed to maintain the status quo. This amount of water holds the salinity wedge at river mile 8.6, which is in the dead cypress zone and below the zone of stressed and dying cypress (page 87). The proposed MFL is 70 cfs, which would hold the salinity wedge at river mile 8.1, which is below the junction with Kitching Creek, and a significant improvement over current conditions. The Department of Environmental Protection has indicated that a much greater flow will be needed to move the saltwater wedge downstream of Jonathan Dickinson State Park and restore the Loxahatchee River (T. Swihart letter to K. LaMartina, June 18, 2001). There are some indications that this improvement can only be achieved by taking actions that would damage the Loxahatchee Slough (taking too much water out, pumping too much water in). This relates to our first recommendation - that MFLs for the river should not be established until MFLs for the Loxahatchee Slough have been established. Damaging the slough in order to improve the river is not an acceptable tradeoff. Strategies need to be identified that will protect both resources and provide for the future restoration of the River.

Selection of Cypress as Indicator Species - The technical discussion in the report leads one to the conclusion that cypress trees are the key indicator of minimum flow levels and saltwater intrusion into the floodplain. However, other plant and animal species are more sensitive to very small changes in salt concentration for extended periods of time. We recommend that further review be conducted to ensure that a sufficient scientific basis exists for using cypress as the indicator species.

Modeling - General Comments (page 58) - There is some question as to whether the two-dimensional hydrological model used in the plan is suitable for use in predicting freshwater and saltwater inflows to the estuary and the response of the river to these flows. A three-dimensional model, such as that used by the U.S.

Army Corps of Engineers, may provide a more accurate prediction of the effects of saltwater intrusion on both the Northwest Fork and the North Fork of the Loxahatchee River.

Data from a 1982 U.S. Geological Survey study was used in the determination of surface freshwater inflows. We believe that these data are out of date and inaccurate. The watershed has undergone major changes in the last 20 years, including the development of new wellfields, the expansion of row crop agriculture, and construction of many residential housing developments, all of which have the potential to affect freshwater inflows. If more recent data is available it should used in the inflow determinations. If it is not available, it may be appropriate to implement temporary measures to prevent further harm to the Loxahatchee River and delay the final adoption of MFLs until accurate flow data is available.

It is our understanding that the freshwater inflows from the North Fork of the Loxahatchee River were not included in the modeling runs. We believe that the North Fork should be included in all models and in the final rule because it plays a key role in providing freshwater inputs to the estuary.

Minimum Duration Requirement - The report recommends that the flows delivered to the Northwest Fork of the Loxahatchee River, as measured at the Lainhart Dam, not fall below 70 cfs for more than 20 consecutive days to protect the upstream cypress community against significant harm. The report, however, acknowledges that there is a lack of information concerning the ability of the saltwater wedge to penetrate the floodplain water table and the salinity level that will cause damage or mortality to cypress trees. The 20 day figure is recommended as a "placeholder" until better information becomes available. Since there is data that shows that under a reduced flow regime (e.g. from 65 to 35 cfs) for a 5 - 8 day time period, the saltwater wedge can move upstream a distance of approximately 1.0 - 1.5 river miles (report, p. 101), it would seem more prudent to establish a "placeholder" of 10 days or less.

Proposed Recovery Plan - Backpumping Into the Slough - It appears that pumps are proposed to be placed in the west leg of the C-18 Canal to backpump runoff water from the J. W. Corbett Wildlife Management Area into the Loxahatchee Slough. This action appears to be the mechanism to be used to achieve the 2020 projection that shows the slough permanently flooded, which will be very damaging to the slough. We request that this approach not be taken, and that an alternative approach be used - establishment of a stormwater impoundment along the west leg of the C-18 Canal on agricultural lands.

Proposed Recovery Plan - Groundwater Pumping Review - The report contains numerous references as to how lowered groundwater levels have affected freshwater flows to the river. However, there is no clearly stated objective to study the effects of pumping of groundwater for irrigation for the large-scale agricultural operations that border the river, or any commitment to reevaluate and possibly reduce the withdrawals when the consumption permits come up for renewal. As this process proceeds, the consumptive use permits for all currently supplied utilities should be reexamined. The review should include the sufficiency or feasibility of permit conditions restricting pumping during various levels of water restrictions. These actions should be added to the strategies to meet MFL needs.

<u>Proposed Recovery Plan - Culvert Work</u> - There are numerous existing culverts within the watershed that are in need of repair or replacement. Phase 1 of the Recovery Plan should include an evaluation of all existing culverts and repair/replacement as needed.

Again, we thank you for the opportunity to comment on the report. If you have any questions regarding our comments, please contact me or Jon Van Arnam, Deputy Director at (561) 233-2400.

Sincerely,

Richard E. Walesky, Director

Environmental Resources Management

REW:si

cc: Ken Todd, Water Resources Manager, Palm Beach County



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February 28, 2002

Ms. Patricia Walker, Plan Manager South Florida Water Management District Post Office Box 24680 West Palm Beach, Florida 33416-4680

SUBJECT:

NORTHERN PALM BEACH COUNTY

COMPREHENSIVE WATER MANAGEMENT PLAN

Dear Ms. Walker,

The following are our department's comments on the final draft of the Northern Palm Beach County Comprehensive Water Management Plan, both the Planning Document (PD) and the Technical Support Document (TSD). These documents were provided to us for our review.

Page 13, PD - The statement in the second paragraph about much of the slough is covered by exotics is not accurate. Vegetation mapping performed by Erwin in 1992 indicated that 645 acres or approximately 12.4% of the central wetland portion of the Loxahatchee Slough was predominantly exotic vegetation. The acreage may have expanded somewhat since then, but still is estimated as below 20 percent. While the Slough does have a significant amount of exotics, they do not cover much of the Slough. In the same paragraph, there is another erroneous statement that "the slough is serving as a seed source for infestation" of exotics into the Water Catchment Area (WCA). This statement is neither accurate nor supported by any scientific evidence. The Loxahatchee Slough is located north of the WCA and the prevailing wind direction is from the southeast, which would blow nearly all seeds released in the Slough away from the WCA. The seed source for infestation in the WCA is from land along its eastern border and remaining exotics within the WCA. We request that these two statements either be corrected or eliminated.

Page 29, PD - The C-17 Backpumping and Treatment project described on this page has a stormwater treatment area (STA) that is located on land that is predominantly native vegetation with large amounts of wetlands. Usage of this land as an STA will result in the destruction of large acreages of native uplands and wetlands, and require high amounts of mitigation with the resulting increased costs. The project could also compete for C-17 basin water with the County's 550-acre SWA Buffer wetland restoration and creation project, which also envisions diverting water from North Palm Beach County Improvement District Canals and the Turnpike Canal, and which is currently in the permitting process. Since the PD says that areas of

Patricia Walker Page 2 February 28, 2002

existing or potential conflict should be identified in the plan (Page v), the discussion of the C-17 project should include this information.

Pages 29 and 30, PD - The C-51 Backpumping and Treatment project described on these pages has a STA that is located on a 600-acre parcel known as the Section 1 tract. This tract has been identified as environmentally-sensitive land and has been on the priority list for the County's environmentally-sensitive lands acquisition program since 1991. This land is entirely native vegetation with large amounts of wetlands. Usage of this land as an STA will result in the destruction of large acreages of native uplands and wetlands, and require very large amounts of mitigation with enormous costs. The new supply canal for this STA will have to run through or adjacent to the County-owned Pond Cypress Natural Area for 2.75 miles and could have major impacts to this nature preserve. Our department expects that the land targeted for the STA will be acquired by the County for environmental preservation and/or mitigation for road construction impacts, and will not be available for use for an STA by the time project construction is expected to start in 2008. Since the PD says that areas of existing or potential conflict should be identified in the plan (Page v), the discussion of the C-51 project should include this information.

Pages 36 and 37, PD - The discussion of the C-18 Reservoir is flawed by unfounded assumptions and unevenly applied criteria. There is not a limited availability of land in the west C-18 basin, as is frequently stated. There is 2,700 acres of agricultural land in the Vavrus ranch and 1,900 acres in the Mecca Farms tract. Representatives of both of these owners have expressed to us a willingness to consider a sale. We note that there is far more land available in the C-18 basin than is available in the C-51 or C-17 basins, yet neither of the two STA projects in those basins are described as having limited land availability. The discussion also limits the reservoir's depth to 6 feet without explaining why it could not be deeper. Finally, it states that a C-18 reservoir was insufficient to meet needs in a 1-in-10 year drought. Many components in the PD do not meet 1-in-10 criteria, including the regional conveyance system (Pages 23, 31, and 38, TSD). We request that either the 1-in-10 year criteria be eliminated from the discussion, or that the performance of all components of the PD be discussed for this criteria.

We note that the best performance for the Loxahatchee Slough and the northwest fork of the Loxahatchee River in avoiding exceeding high and low water target levels was for modeling runs 3 and 6, which included a limited 300-acre C-18 reservoir (Tables 15 and 16, PD) We believe that the performance would even be better if an adequately-sized reservoir was modeled, as it would attenuate stormwater flows and provide additional baseflow to the river. A 600-acre reservoir with a depth of 8 feet (4,800 acre/feet) could provide 50 cfs of baseflow for a 90-day period. This would be nearly all the 5,000 acre/feet annual deficit identified for the river (Page 24, PD). We note that stormwater from approximately 47 square miles could be directed to this reservoir, which is far more than the 33 square miles in the C-17 basin, where a stormwater retention area is proposed.

It seems obvious to us that both a C-18 reservoir and the regional conveyance system will be necessary to meet the needs of the Loxahatchee River. The reservoir could help to relieve some of

Patricia Walker Page 3 February 28, 2002

the demand on the regional system, and might make components with major environmental impacts, like the C-17 and C-51 backpumping, unnecessary. The \$51 million estimated for these two projects (Page 26, PD) could then be utilized for the reservoir. We request that the section on the C-18 Reservoir in both the PD and the TSD be re-written to eliminate unfounded assumptions and selectively-applied criteria. These sections should present the information on this component in a fair-handed manner and indicate how the potential of this component will be examined. We advise that land acquisition for this component needs to undertaken as soon as possible as the land may not be available several years into the future.

Page 39, PD - At the bottom of the third paragraph, there is a statement that a high rate of inflow from the C-18 Canal at the Mirasol site was to refill wetlands in the eastern Loxahatchee Slough drained by the opening of the S-46 structure. This statement is incorrect. The C-18 Canal is maintained at 14.8 feet (page 39, PD) and the Slough is completely dry at 15 feet (page 36, PD). The C-18 water does not flow uphill to refill these wetlands. The inflows at the Mirasol site are caused by a direct connection from the C-18 Canal, via the Mirasol site drainage canals, to the Turnpike canal. The Turnpike canal is drawn down to levels of 11 to 12 feet by the Hood Road wellfield pumping. This statement should either be corrected or eliminated.

Page 48, PD - We request that the County's SWA Buffer wetland restoration and recreation project be added to Table 6. The project was initiated in 2001, Palm Beach County is the lead agency, and the estimated projected cost is \$10 million. The phrase "six new culverts" after the C-18 Culvert Connections to the Hungryland Slough project name should be deleted and replaced with "removal/replacement of existing culverts"

Pages 55 and 56, PD - We request that the recommendations on these pages to install a pump station to collect runoff from the Corbett Wildlife Management Area into the C-18 Canal and store it into the Loxahatchee Slough be deleted. We are not sure whether this is the same component as the backpumping from South Indian River Water Control District (SIRWCD), but are opposed to both. Development of this pump station presupposes that the C-18 Reservoir will not be built. We believe that the reservoir will be found necessary and the pump station will be redundant. We also believe that additional storage for SIRWCD water should be found within SIRWCD's system. In any case, we believe that any benefit from C-18 backpumping will be minimal. There will be very few situations when excess water is available in the C-18 Canal and the Loxahatchee Slough is also below its target hydroperiod. Pumping water into the Slough when it is at or above its target hydroperiod is incompatible with the purposes for which it was purchased and the County's proposed management of the Slough. We are unable to tell if there is any significant benefit from the SIRWCD backpumping since it was modeled in five of the six modeling scenarios (page 7, TSD), but the benefits seem to be minimal. The regional conveyance system improvements are supposed to meet the minimal additional water requirements of the Slough and deliveries to the Slough are used as part of the justification for these improvements. We request that no action be taken on any C-10 backpumping until a final decision has been made on the C-18 reservoir, and that any benefits from

Patricia Walker Page 4 February 28, 2002

the backpumping be clearly defined separate from other components and determined consistent with the constraints under which the Slough will be managed.

If you have any questions, please do not hesitate to contact me at (561) 233-2400.

Sincerely,

Richard E. Walesky, Director

Environmental Resources Management

REW:SF:dkg

cc: Robert Weisman, County Administrator

Gary Dernlan, Director, Water Utilities Michael Voich, Project Manager, SFWMD Loxahatchee River Coordinating Council